



VALVE BOUNCE

APRIL,
2021



Ever aspire to owning a replica of one of the classic great sports cars from the 50s and 60s? Looks like you won't ever be able to, no matter what your budget – story inside.

In this edition: coming events; working bee; hillclimb reviews; khanacross review; notable past dates; replicas under attack; and pistons explained Pt 2.

- Gippsland Car Club Inc PO Box 493, Morwell, 3840 A3759. ABN 76 691 013 424
- Website: gippslandcarclub.com.au
- Track: Bryant Park, Bill Schulz Drive, Yallourn, 3852.
- All contents © Gippsland Car Club 2020

**GIPPSLAND CAR CLUB INCORPORATED
2020-1 BOARD OF DIRECTORS**

CHAIRMAN (ACTING)	Ken Neilson P.O. Box 1377, Traralgon, 3844	0409 427199
DEPUTY CHAIRMAN	Paul Hickey ausca62@hotmail.com	0427 852179
SECRETARY	Rhys Yeomans rhysyeomans@gmail.com	0400 519490
TREASURER	Yvette Stolk ystolk@gmail.com	0411 166 628
COMPETITION SECRETARY	Rhys Yeomans rhysyeomans@gmail.com	0400 519490
KHANACROSS	Rob Duncan hxdude76@yahoo.com.au	0419 501394
PROPERTY	Bill Jennings niscap@aussiebroadband.com.au	0459 833431
MEMBERSHIP	Ken Neilson ken@streetwise.net.au	0409 427199
VALVE BOUNCE EDITOR	Ian Maud icfm710@gmail.com	0414 580921
PUBLICITY AND MARKETING	James Dyer james.dyer.90@gmail.com	0437 760019
HEALTH AND SAFETY	Shane Cane shanecane@me.com	0407 764275
BUILDINGS	Phil Tullett phil.tullett@energyaustralia.com.au	5127 8915
TRACK	Wayde Griffiths arrowlinemarking@y7mail.com	0458 882353
CLUB WEBSITE/FACEBOOK	Rhys Yeomans rhysyeomans@gmail.com	0400 519490
CLUB PERMIT REGISTRAR	Ken Neilson P.O. Box 1377, Traralgon, 3844 ken@streetwise.net.au	0409 427199
CLUB POINTS SCORER	(enquiries to Rhys Yeomans)	
CLUB ASSET HIRE	John Bryant johnandcarolbryant@yahoo.com.au	0439 741473
SOCIAL	Jill Hickey jillracer727@gmail.com	0409 412452
CAMS DELEGATE		

MAGAZINE CONTRIBUTIONS Forward by email to icfm710@gmail.com Contributions should be forwarded by the third Friday in the month.

BANK DETAILS: Bendigo Bank, BSB 633000, Account Number 1574 73836, Gippsland Car Club

WEB PAGE: www.gippslandcarclub.com.au

GIPPSLAND CAR CLUB VISION: To inspire and enable people to participate in motor sport.

GIPPSLAND CAR CLUB MISSION: To provide affordable motor sporting experiences for people of all abilities in a safe and friendly environment.



CALENDAR 2021

APRIL

Saturday 10	MSCA Sprints at Sandown
Saturday to Sunday, 10/11	PIARC Access Races at Phillip Island
Saturday to Sunday, 10/11	Supercars at Symmons Plains, Tasmania
<u>Saturday to Sunday, 10/11</u>	<u>Drive Events track hire at Bryant Park</u>
Sunday 11	NSW Hill Climb Championship Round 3 at Huntly
Tuesday 13	Board Meeting, 7.00 p.m.
Sunday 18	M&DCC Boisdale Hill Climb Short Track
Sunday 18	Tampered Motorsport Track Day at Sandown 0497 262178
Sunday 18	AROCA Sprint at Winton
Sunday 18	VHCC Round 4 at Bryant Park (PIARC)
Monday 19	Tampered Motorsport Track Day at Sandown 0497 262178
Monday to Saturday, 19/24	Targa Tasmania
Saturday to Sunday, 24/25	Winton 60 th Anniversary Race Meeting
<u>Saturday to Sunday, 24/25</u>	<u>Ford Four Track Hire at Bryant Park</u>
Sunday 25	ANZAC Day
Friday 30 to Sunday May 2	Shannons Nationals/TCR Australia at Sydney Motorsport Park

MAY

<u>Sunday 2</u>	<u>Private track hire –Fabulous Technologies</u>
Sunday 2	NSW Hill Climb Championship Round 4 at Kempsey
Sunday 2	VHRR Historic Hill Climb at Rob Roy
Tuesday 4	Valve Bounce collation
Friday to Sunday, 7/9	Supercars at The Bend, SA
Saturday 8	AROCA Sprint at Sandown
<u>Saturday 8</u>	<u>Impreza WRX Club track hire at Bryant Park</u>
Sunday 9	Mothers Day
Sunday 9	Tampered Motorsport Track Day at Sandown 0497 262178
Tuesday 11	Board Meeting, 7.00 p.m.
Friday 14	GCC ANNUAL GENERAL MEETING AND ELECTION OF OFFICE BEARERS, CLUBROOMS, 7.00 P.M.
Saturday to Sunday, 15/16	Victorian State Race Series Round 3 at Phillip Island
Sunday 16	MSCA Sprints at Winton
Saturday 22	M&DCC Boisdale Hill Climb Long Track
Saturday to Sunday 22/23	Historic Winton
Sunday 23	MGCC Interclub Hill Climb Round 2 at Rob Roy
Sunday 23	NGK Victorian Khanacross Championship Round 3 at Bryant Park
<u>Saturday 29</u>	<u>Nugget Nationals track hire at Bryant Park</u>
Saturday to Sunday, 29/30	Supercars at Winton
<u>Sunday 30</u>	<u>SAAB Club of Victoria track hire at Bryant Park</u>

JUNE

Tuesday 1	Valve Bounce collation
Friday 4	Tampered Motorsport Track Day at Sandown 0497262178
Saturday 5	Tampered Motorsport Track Day at Sandown 0497262178
Sunday 6	GCC Multiclub Hill Climb at Bryant Park
Tuesday 8	Board Meeting, 7.00 p.m.
Friday to Sunday, 11/13	Australian Endurance Championship Round 2 at Winton
Saturday to Sunday, 12/13	VHCC Round 5 at One Tree Hill, Ararat
Sunday 13	NSW Hill Climb Championship Round 5 at Grafton
Friday to Sunday, 18/20	Supercars at Hidden Valley, NT
Sunday 20	AROCA Sprint at Winton
Friday to Sunday, 25/27	Shannons Nationals/TCR Australia at Morgan Park
Saturday 26	Repco Sprints Round 3 at Winton
Saturday to Sunday, 26/27	PIARC Supersprint Round 3 at Phillip Island
Sunday 27	GCC Khanacross at Bryant Park

JULY

Sunday 4
Sunday 4
Tuesday 6
Friday to Sunday, 9/11
Saturday 10
Saturday to Sunday, 10/11
Sunday 11
Tuesday 13
Friday 16
Saturday 17
Sunday 18
Sunday 18
Sunday 18
Saturday to Sunday, 24/25
Sunday 25

VHCC Round 6 at TAFE Logic Centre, Wodonga
AROCA Sprint at Phillip Island (TBC)
Valve Bounce collation
Supercars at Townsville, FNQ
M&DCC Boisdale Twilight Hill Climb, Long Track
Super Trucks at Winton
MSCA Sprints at Sandown
Board Meeting
Tampered Motorsport Track Day at Sandown 0497262178
Tampered Motorsport Track Day at Sandown 0497262178
GCC Multiclub Hill Climb at Bryant Park
NSW Hill Climb Championship Round 6 at Tamworth
AROCA Sprint at Broadford
Victorian State Race Series Round 4 at Sandown
Repco Sprints Round 4 at Winton

AUGUST

Tuesday 3
Saturday to Sunday, 7/8
Saturday to Sunday, 7/8
Sunday 8
Tuesday 10
Saturday 14
Sunday 15
Sunday 15
Sunday 15
Friday to Sunday, 20/22
Friday to Sunday, 20/22
Sunday 22
Sunday 29

Valve Bounce collation
Festival of Speed at Winton
PIARC Access at Phillip Island
NSW Hill Climb Championship Round 7 at Ringwood
Board Meeting, 7.00 p.m.
M&DCC Boisdale Twilight Hill Climb Long Track
MSCA Sprints at Winton
GCC Khanacross at Bryant Park
VSCC Vintage Hill Climb at Rob Roy
Supercars at Sydney Motorsport Park
Champion at Winton
VHCC Round 7 at Broadford
GCC Multiclub Hill Climb at Bryant Park

SEPTEMBER

Saturday 4
Sunday 5
Sunday 5
Sunday 5
Tuesday 7
Friday to Sunday, 10/12
Saturday to Sunday, 11/12
Saturday to Sunday, 11/12
Sunday 12
Sunday 12
Tuesday 14
Friday to Sunday 17/19
Friday to Sunday, 17/19
Saturday to Sunday, 18/19
Sunday 19
Sunday 19
Saturday to Sunday, 25/26
Saturday 25
Sunday 26

AROCA Sprint at Sandown
Austin 7 Club OST at Bryant Park
NSW Hill Climb Championship Round 8 at Gunnedah
Fathers Day
Valve Bounce collation
South Australian Hill Climb Championship at Collingrove
Supercars at Waneroo, WA
Nugget Nationals at Winton
MSCA Sprints at Phillip Island
GCC Khanacross at Bryant Park
Board Meeting, 7.00 p.m.
Shannons Nationals/TCR Australia at Sandown
Super Trucks at Winton
PIARC Supersprint Round 4 at Phillip Island
M&DCC Boisdale Hill Climb Short Track
MOTORSPORT AUSTRALIA Club Challenge at Bryant Park
Victorian State Race Series Round 5 at Phillip Island
Honda Nationals at Winton
VHCC Round 2 at Bryant Park

OCTOBER

Sunday 3
Sunday 3
Sunday 3
Tuesday 5
Thursday to Sunday, 7/10

NSW Hill Climb Championship Round9 at Fairbairn Park
MGCC Interclub Hill Climb Round 3 at Rob Roy
Kyneton Car Club track hire at Bryant Park
Valve Bounce collation
Bathurst 1000

Saturday 9	MSCA Sprints at Sandown
Tuesday 12	Board Meeting, 7.00 p.m.
Friday to Sunday 15/17	Shannons Nationals at The Bend
Saturday to Sunday, 16/17	AROCA 12 Hour Relay at Winton
Saturday to Sunday, 16/17	Mt Tarrengower Historic Hill Climb
Saturday 16	M&DCC Boisdale Twilight Hill Climb Long Track
<u>Saturday 16</u>	<u>MG Car Club track hire at Bryant Park</u>
Thursday to Sunday, 21/24	Australian Hill Climb Championship, Mt Cotton, Queensland
Friday to Sunday, 22/24	Australian MotoGP at Phillip Island
Saturday to Sunday, 23/24	Formula Vee Nationals at Winton
Friday to Sunday, 29/31	Saloon Fest at Winton
Sunday 31	GCC Khanacross at Bryant Park
NOVEMBER	
TBA November or December	TCR Australia Bathurst International
Wednesday 3	Valve Bounce collation
Friday to Sunday, 5/7	Excel Enduros at Winton
Saturday to Sunday, 6/7	Supercars in Auckland, NZ
Sunday 7	GCC Multiclub Hill Climb at Bryant Park
Tuesday 9	Board Meeting, 7.00 p.m.
Thursday to Tuesday, 11/16	Bathurst Challenge
Saturday 13	Repco Sprints Round 5 at Winton
Saturday 13	M&DCC Boisdale Hill Climb (Noel Burley Memorial) Short Track
Saturday to Sunday, 13/14	PIARC Supersprints Round 5 at Phillip Island
Sunday 14	AROCA Sprints at Winton
<u>Wednesday 17</u>	<u>Targa Florio at Bryant Park</u>
Thursday to Sunday, 18/21	Australian Grand Prix at Albert Park
Saturday 20	Winton 300
Saturday to Saturday, 20/27	RACV Alpine Trial Centenary
Friday to Sunday, 26/28	Bathurst International
Friday to Sunday, 26/28	HQ Enduro at Winton
<u>Saturday 27</u>	<u>Nugget Nationals track hire at Bryant Park</u>
Saturday to Sunday, 27/28	Island Magic at Phillip Island
DECEMBER	
Friday to Sunday, 3/5	Supercars at Surfers Paradise, Qld
Saturday 4	GCC Multiclub Twilight Hill Climb at Bryant Park
Tuesday 7	Valve Bounce collation
Sunday 12	AROCA Sprints at Phillip Island (TBC)
Sunday 12	GCC Khanacross at Bryant Park
Tuesday 14	Board Meeting, 7.00 p.m.

NOTE:

- All dates shown above are subject to change - please check with the organisers of the events to confirm the dates.
- Events shown as **Bold** are rounds of the Gippsland Car Club Championship (some of these dates may be changed)
- Events shown as **Bold Italics** are rounds of the Gippsland Car Club Khanacross Championship.
- GCC Practice Days are for members and associate members only, and will run from 1.00 pm until 4.00 pm.
- If you believe that any of the dates listed are incorrect, please contact John Bryant and they will be amended.



RIP: Alan Newton

Many of the older members of the Club will remember Alan. He was born on the 16th April, 1938 and passed away on the 16th March, 2021, after a battle with cancer. He leaves behind his wife Mary and two sons: Andrew and Shane. He was a GCC member for many years.

Alan was a leading light in the golden age of sports car racing – owning, amongst other cars, a Bolwell SR6 built especially for him by the Bolwell factory (the only one ever built) and the Elfin MS7 built and raced by Gary Cooper (again, the only example ever built), then raced by Alan with great success. He survived an horrific accident at Calder in 1984 in round 2 of the Australian Sports Car Championship (vision available on YouTube) (*Ed: Alan hit the Armco at over 100mph, moving it back several metres – an impressive force*).

Alan was a loving husband and father and a generous and caring person. He spent many years racing and after retiring from competition still enjoyed his passion for motorsport in general, building motorbikes and a Formula 5000 McLaren.

-Pete Weichard

Ed: Current GCC members will remember this photo that appeared on the front cover of VB in February – this was Alan in the Bolwell SR6.



Editorial Ponderings:

This past month seems to have been notable for the passing of some excellent people linked to motorsport. At the GCC, we acknowledge the passing of former club member Alan Newton, as you will read about elsewhere in this mag, thanks to member Pete Weichard.



Viewers of the TV series 'Top Gear' will recall the excellent episode where Clarkson, in trying to set a respectable time in a diesel-powered Jaguar, is completely overshadowed by his instructor, Sabine Schmitz. She goes on to do a couple of highly entertaining laps in no less than a Ford Transit van, nearly equalling Clarkson's lap time in the process. Sadly, Sabine – known as the 'Queen of the Nürburgring' – passed away recently from cancer at the ridiculously young age of 51, depriving us of a bright, skilled and inspirational personality and driver. We are certainly the poorer for her loss.

A few days earlier, the motoring world was quite properly saddened to hear of the passing of Murray Walker OBE, at the age of 97. Nearly everyone has heard of Murray, even those who have never watched a Grand Prix! Following in his father's footsteps, he began racing motorcross bikes as a young lad, until one fateful day in the early 1940s he was asked to commentate on the event. One thing led to another, and he became a regular fixture at motorcycle races. He made his first Grand Prix telecast in 1949 and was eventually hired by the BBC in 1978 as their full-time F1 commentator. Murray retired in 2001 after nearly a quarter century in the role (a lifetime in TV nowadays), during which time he worked with co-hosts such as Martin Brundle and the infamous James Hunt.



What endeared Murray to millions of F1 viewers was his humility; his encyclopediac knowledge of the sport; but perhaps most of all, his famous blunders! Murray would become wrapped up in the event and in his excited delivery came up with many confused lines, often self-contradictory, that have become enshrined as 'Murray-isms.' Here is a small selection:

"There's nothing wrong with the car, except that it's on fire."

"The lead car is absolutely unique, except for the one behind it which is identical."

"This would have been Senna's third win in a row, if he'd won the two before."

"And now, excuse me while I interrupt myself."

"There are seven winners of the Monaco Grand Prix on the starting line today, and four of them are Michael Schumacher."

Murray has been described repeatedly as a “National Treasure,” and a “Formula 1 legend.” F1 commentary has certainly not been as entertaining and informative since his departure: he was a true motorsport icon in our lifetime. RIP Murray Walker.

To end on a happier note:

Many club members would have seen my FIAT being towed off the track in disgrace after its clutch let go at around 8,000rpm, destroying the clutch, hammering the flywheel and adding lightness to the car by venting the bellhousing with four new and quite substantial openings: two of which allowed the gearbox oil to surge onto the spinning flywheel, simultaneously spraying the muffler and causing a decent-sized smoke cloud behind the driver, while dumping what was left on the track – a rather complete melt-down. Steve Schmidt later wrote a review of the hillclimb in the GSCCR's magazine 'Idle Chatter,' where he listed the FIAT as running in 'Sports Cars – up to 2 *lire* class.' Yes, at that moment I think that's just about what it *was* worth!

Sometimes you don't have to look for humour – it comes to you. As you get older, and the powers of hearing and sight diminish, it seems to me to do so with increasing frequency! Here's an example from my recent past: I occasionally drive charter buses, and was getting my next list of jobs from the bus owner...let's call him Fred, to avoid being maliciously reversed over at some stage in the future. Fred told me “...and on Tuesday, you're taking a school group to the Melbourne Rectal Centre.” My confused mind leapt from one possible biological explanation to another: What's wrong with the group – is this for medical attention? Is there something in their diet? Are they watching a surgical procedure? (And, as my darling wife later enquired: will I have to back up to the building?). Quickly, and thankfully, I asked Fred to spell out the title...seems I was taking a group of young musos to the Melbourne Recital centre! I'm sooo glad we sorted that one out. See you next month.

-IM, the Ed.

Competition Secretary Report - Multiclub Hill Climb – Figure 8. – Rhys Yeomans

Following the failed attempt to run Round 2 VHC in February (now rescheduled to 26th September), our first hill climb for 2021 was on March 14th. This event wasn't originally in our calendar, though with some great work by the Board, we were able to schedule the event at short notice.

From a competition secretary perspective, thank you to all competitors that have persisted with the required scrutineering forms and online entries.

With 54 entries and a sunny day, it was great to be back at Bryant Park, running the figure 8 layout. We did have a few mechanical incidents, which we'll blame on cars being in the garage for too long, though these did not cause too many dramas!

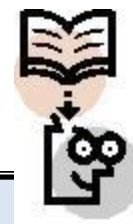
Fastest for the day was Peter Minahan with a 55.53, followed closely by brother Bruce with a 56.23. The top 6 finishers were all under 60 seconds, an impressive feat on the figure 8 layout!

I am enjoying seeing the number of double (and triple!)-entered cars driven by families at Bryant Park. We have the Newtons in their Commodore (who also compete in the Khanacross events!), the Corlukas in their very aggressive WRX, the Goossens in their MR2 which looked to do quite well at Mt Leura this past weekend, Priestly/Thirlwalls in their Audi TT, as well as both the Hickeys and Assaads in their Corollas.

Our next hill climb at Bryant Park is Round 4 of the Victorian Hillclimb Championship hosted by PIARC on Sunday 18th April. Our next Multiclub Hillclimb is Sunday 6th June. We look forward to seeing many club members competing in both events!!
(Ed: photos later in this magazine).

What do you need to know now?

➤ CLUB CHAMPIONSHIP 2021:



Next GCC HILLCLIMB:

- Sunday, April 18th GCC Championship/VHCC Rd 4

Next GCC KHANACROSS:

- Sunday, May 23rd GCC Championship/VKC Rd 3

➤ VICTORIAN HILL CLIMB CHAMPIONSHIP 2021 - next round:

- Sunday, April 18th

And also:

Next GCC WORKING BEE

Upcoming Working Bee and Club practice – Saturday, 10th April.

These will be great opportunities for us to complete some of the major projects we've had running at Bryant Park in 2020, which includes the timing building and the new scrutineering shed extension.

All members are welcome to attend working bees and we will endeavour to delegate a job to you that aligns with your skills.

The obvious task is cutting the grass, so if you have a lawn mower or whipper snipper, please bring it along.

The working bees start at 9:00am, with hill climb practice from 1:00pm to 4:00pm.

Working bees and the afternoon practice are open to Gippsland Car Club members only.



Wednesday working bees

We've had a couple of requests from people wanting to assist in the maintenance of Bryant Park during the week, outside of normal organised working bees.

It could be as simple as you cutting grass for an hour, weeding some of the garden or something else that is deemed as required.

These days will not be as formal as our regular working bees and there will be no practice or BBQ.

As Bill Jennings is at Bryant Park most Wednesdays, please contact him (details in front of Valve Bounce) if you would like to assist on an upcoming future Wednesday.



Ed: Here's a selection of events scheduled by groups outside the GCC, that might be of interest to our members:

➤ From the AOMC:



Apr 17, 2021

Echuca Swap Meet

Rotary Park, Rose Street

Echuca, Victoria

NOTE: The Austin 7 Club advises that due to COVID-19 restrictions, this year's Historic Winton will be open only to car and motorbike entrants, their pit crews and required officials. Should restrictions be eased, a limited number of spectator tickets will be issued. Details on website and Facebook.



Apr 18, 2021

Gippsland Vehicle Collection - Swap Meet

1A Sale Road

Now postponed to later in the year-TBA



More local events that may be of interest:

The Gippsland Vehicle Collection *presents* **FIRST & LAST**



**A DISPLAY OF THE EVOLUTION OF AUSSIE BUILT NAMES
AT OUR MAFFRA MOTOR MUSEUM FROM MARCH 14th
2021 UNTIL END OF JUNE 2021**



Museum open Mon to Fri 10 til 4
Daily during school holidays
Anytime by appointment (groups)



gippslandvehiclecollection.org.au

Second Sunday of each month: why not join some of our members at the Gippsland Sporting and Classic Car Register's 'Breakfast Club' in Warragul? This is a very low-key, friendly event: people simply park their cars of interest (ALL sorts of vehicles welcome!) in the southern end of the Woolworth's car park, off Victoria St – and wander around! Breakfast and coffee available at a number of local businesses. Officially, this runs between 8:00 and 9:30am but many are now arriving before this. Last month there were 150+ cars on show! Everything from vintage to hot rods...even a restored tow truck!





RACV ALPINE TRIAL CENTENARY

20-27 NOVEMBER 2021

In 2021 RACV will celebrate the centenary of the RACV Alpine Trials, events that were significant milestones in Australian automotive history. To commemorate those milestones, RACV, along with the Vintage Drivers Club, will be organising an event recreating the original 1921 Alpine Trial. The RACV Alpine Trial Centenary will be held from Saturday 20 November to Saturday 27 November 2021.

HISTORY

RACV held a series of reliability trials between 1921-1926. The route of the inaugural 1921 trial ran from Melbourne to Lakes Entrance, Tallangatta, Mount Buffalo, Wangaratta and Healesville before returning to Melbourne via a final loop through Ballarat and Geelong.

The trial focused on Victoria's Alpine region, advocating for both tourism and the construction of better roads and services to expand the touring potential of north-east Victoria. They were both reliability and efficiency contests. Hill climbing contests and fuel consumption tests were also included with automobile companies using the associated publicity to promote their vehicles.

The RACV Alpine Trial Centenary event will follow, as close as practicable, the route of the 1921 RACV 1000 Mile Reliability Trial.

THE CENTENARY EVENT

A maximum of 100 vehicles will be permitted to enter, with preference given to vehicles that competed in the original events and to other vehicles manufactured during the period of the trials: 1921-1926.

Entries will be accepted in 3 Tiers. Preference for acceptance will be in the order of these tiers.

TIER 1: Vehicles that actually contested any of the four RACV events between 1921-1926.

TIER 2: Vehicles of the same make and model as the original contestants of the 1921-1926 trials.

TIER 3a: Other vehicles manufactured between 1921-1926.

TIER 3b: Vintage vehicles up to 1930.

EVENT PROGRAM

Day 1 - Saturday 20 November 2021	RACV Noble Park to Traralgon
Day 2 - Sunday 21 November 2021	Traralgon to Lakes Entrance
Day 3 - Monday 22 November 2021	Lakes Entrance to Wodonga
Day 4 - Tuesday 23 November 2021	Wodonga to Bright
Day 5 - Wednesday 24 November 2021	Bright to Mt Buffalo, Harrietville & return to Bright
Day 6 - Thursday 25 November 2021	Bright to Mansfield
Day 7 - Friday 26 November 2021	Mansfield to RACV Healesville Country Club
Day 8 - Saturday 27 November 2021	Healesville to Ballarat and finishing at RACV Goldfields Resort

Entry is now open for the RACV Alpine Centenary Trial [CLICK HERE](#)

Secretary RACV Alpine Trial Centenary
Glenda Chivers, 10 Beaufort Rise, Warrandyte 3113
Phone: 0431 709 248 Email: racvalpinetrialcentenary@vdc.org.au



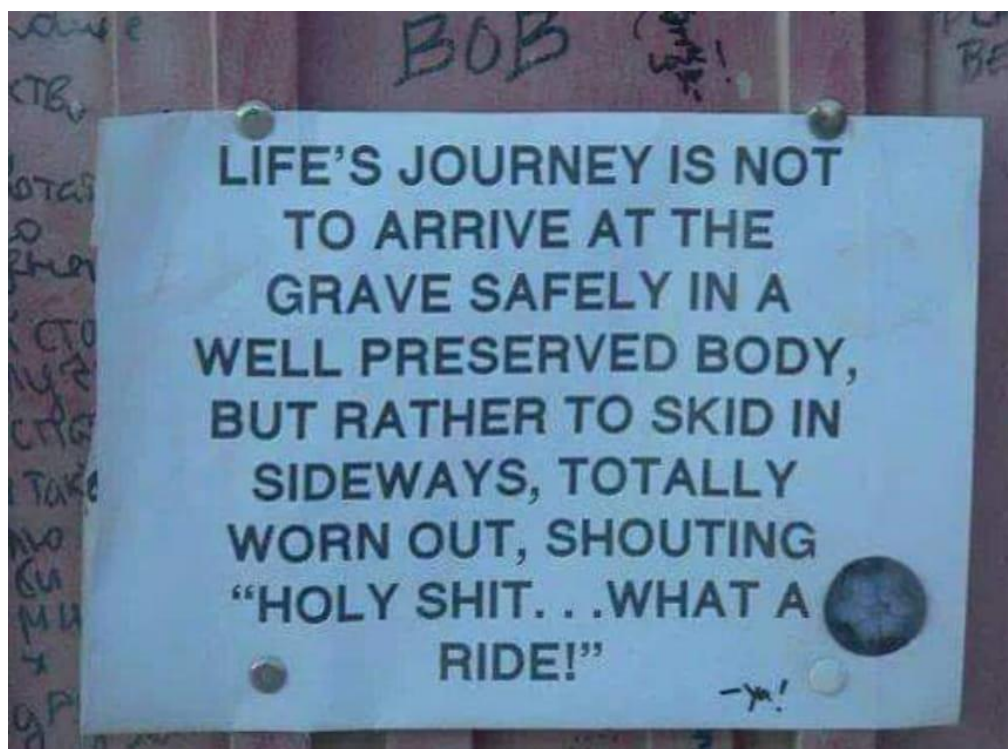
Ed: The Alpine Centenary Trial advertised on the previous page attracted a response from Brian Ward, who would like to advise GCC members that this event is non-competitive, BUT there is also a 100th anniversary competitive special stage Alpine Rally planned for 2nd to 5th of December 2021.

Further information is available at www.alpinerally.org.au



O'CONNELL'S TYRES
136 MOORE ST, MOE
(03) 5126 2822

MECHANICAL REPAIRS	STEERING ADJUSTMENTS
LOG BOOK SERVICES	SAFETY CHECKS
BRAKES	SUSPENSIONS
ALIGNMENTS	GENERAL REPAIRS
COMPUTER SCANS	PARTS FITMENT
TYRE REPAIRS	TYRE REPLACEMENT
WHEEL BALANCE	MECHANICAL INVESTIGATION



Report: Working Bee, 27th March

-Rhys Yoemans

Short notice, a clash with Round 3 of the Victorian Hillclimb Championship AND horrible, rainy weather meant that our last working bee was more about socialising in the club rooms rather than doing any major work at Bryant Park!

In-between the rain, we did have Iain McGowan and Karl Hess complete some whipper-snipping along the barriers, as well as Tom Green and Ian Mayze pressure-washing the balcony and exterior of the club rooms.

Tom and Karl made use of the afternoon practice running laps in the rain, which is always invaluable for developing your skills!

Despite the small numbers on this occasion, we appreciate all members who contribute to the maintenance of Bryant Park!



Ed: thought you might enjoy this for a challenge.

Apparently if you can find 7 people and a cat in this picture, your brain is in the best condition.

6 is fine, 2 or 3 means the mind needs help.

(Anything wildly different from these numbers suggests you ought to look at the electronic version of VB...or leave off the drinking until you're finished!)

BITS AND PIECES, INCLUDING 'FROM THE BOARD' - John Bryant

1. **POSTPONEMENT OF THE VICTORIAN HILL CLIMB CHAMPIONSHIP EVENT.** Due to the most recent COVID-19 lockdown restrictions, our event scheduled to be held on February 13 had to be postponed at the proverbial eleventh hour – it is indeed unfortunate that this occurred, as we were heavily into practice when the announcement came, and Secretary Rhys Yeomans had to contact the over 100 entrants for the event to tell them it was not on. The event has been rescheduled to be held on Sunday, September 26 – this is **not** a twilight event, and will be taking the place of a multiclub hill climb that we had already scheduled for that day. Members who had entered the February 13 event will be advised in due course as to what they have to do for the September 26 event.
2. **ANNUAL GENERAL MEETING.** We will be conducting our Annual General Meeting in the Clubrooms on Friday, May 14. We missed out on the 2020 AGM due to the COVID crisis, so the current Board has served two years instead of the normal one. This will now give members a chance to join the Board for the ensuing twelve-month period. All Board positions are vacated at the AGM, and any member can apply for any position – current Board members are eligible to reapply for their current position. At the last AGM, held in 2019, the following positions were offered: Chairman, Deputy Chairman, Secretary, Treasurer, Competition Secretary, Khanacross, Property, Membership, Valve Bounce Editor, Publicity and Marketing, Health and Safety, Buildings, Track, Club Website/Facebook, Club Permit Registrar, Club Points Scorer, Club Asset Hire, and Social. Position descriptions and Application forms will be included on the website shortly, as will full details of the AGM.
3. **TRACK HIRES.** It has been mentioned previously that the Club has three main sources of income – membership, hill climb and khanacross entries, and track hire fees. Track hire fees is the area that is the most variable, as this is dependent upon whether or not clubs or organisations wish to hire the track. Such hires may be held either during the week or at weekends – the during the week hirers tend to be car companies or magazines completing glossy brochures or articles on cars – the outcome of this work appears either on TV or in magazines a little further down the track.
What is it, apart from collecting money for the hires, that we have to do for such track uses?

For all except a proper hill climb run by another Club, we only have to open the front gate, open the toilets, sometimes open the Clubrooms, and then sit back and relax. For a hill climb run by another Club, we have to open the gates, open the toilets, sometimes open the Clubrooms and operate the timing for the event. The hiring Club has to provide all other officials for the event. Over the next five weekends we have five such track hires – Drive Events on April 10 and 11 (no timing), VHCC Round 4 on April 18 (a PIARC track hire for which we provide the timing), Ford Four Car Club on April 24 and 25 (we provide the timing), Fabulous Technologies on May 2 (no timing) and Impreza WRX Club on May 8 (timing required). There are two more hires at the end of May. Are you interested in assisting at any of these events? A shared arrangement is the best, where each person only looks after the place for a couple of hours, rather than being there all day on your own. This occurred for a week day hire last week when Cliff Whitehead looked after the morning shift, Bill Jennings the lunchtime shift, and I took over for the afternoon shift. If you can see your way clear to help at any of these days, please contact either Rhys Yeomans or myself.

4. **KHANACROSS.** On May 23 we are conducting, for the first time, a round of the Victorian Khanacross Series. It would be good to see Club members at this event, particularly having a few extra to assist with the running of the meetings.

Competition report:

A Late Start to the Hillclimb Competition Year – The Multiclub hillclimb of March 14th, 2021.

-John Bryant

After the February round of the VHCC was cancelled at the eleventh hour due to state lockdown, we were left with the prospect of not having an event of our own until June – fast planning saw an event organised for March 14, utilising the Clockwise Figure 8 Track. Was that enough time to get people involved or was it not? It turns out that it was, with over 50 entries, most of whom were competition-starved club members. Most classes were well subscribed, although there were still four classes with only one entrant in each. It was good to see seven open-wheeler racing cars, and sports sedans, normally thin on the ground, saw a total of 16 cars over the three classes. Sports cars were the next best subscribed with 14 entries, whilst Improved Production, which normally has the greatest number of entrants, had eleven on this occasion.

All entrants had the opportunity of completing seven runs for the day, and most took this opportunity. The battle for fastest time of day was hard fought, eventually going to Pete Minahan in the Hayward 07 with a best time of 55.53 seconds, marginally in front of brother Bruce, sharing the Hayward, who recorded his best time of 56.23 seconds. Wim Janssen was close behind in the Wimp 004 with a time of 56.48 seconds. Ewen Moile in the Ramblebee was in fourth position with a time of 57.24 seconds, from David Casey in the Casey TH109R with a time of 58.29 seconds, from sixth position Mark Samson in the FF Spectrum 011b with a very good time of 59.64 seconds.

Rhys Yeomans was the fastest tin top, recording a time of 61.98 seconds to be in position number seven. He finished just in front of the Clubman Sports Cars of Dale Hocking and Steve Buffinton, who recorded 62.60 and 62.76 respectively. Not far behind, and rounding out the top 10, was Keith Wilson in the Ninja who recorded a time of 63.04 seconds. The surprise of the day to some, but not all, was the time of 63.59 seconds set by James Dyer in the Toyota Yaris GR – the car looks like a toy, has a minute motor, but can it go and can James drive!! The timing building experts concluded that this car was indeed the fastest car off the start line!

Larry Kogge was happy to see that at long last he had some competition in his class – the only problem was that the Mazda RX2 of Jim McNiven decided not to cooperate on the day, and only managed to finish two runs prior to retirement. Dennis Orr competed in his first hill climb for probably forty years, whilst Jarrod Bryant competed in his first since the AHCC in 1999. Terry Selwyn was the fastest in the IP up to 2000 class, convincingly in front of Norm Assaad and the rest of the competitors in the class. Mark Newton and Mitchell Newton fought to win the IP 2001 and over class, with Mark coming out in front. There were a good number of competitors in the Sports Cars up to 2000 class, with Ian Speight, who completed one of his runs on the end of a tow rope, winning a close fought class from Sei Valla and Mick Goossens, the three of whom were a fair distance in front of the other six in the class. Sean Priestly and Carrie Thirlwall had a close tussle in the Sports Cars 2001 and over class, with Sean taking the win over Carrie by 0.19 of a second. Michael Wray, in the very fast V8 Volvo, took out the SS 2001 and over class, by just 0.96 of a second from Cameron Isles. James Dyer, in the innocent looking Toyota Yaris GR, was a long way in front of the rest of the field in the SS 4 Wheel Drive class.

A good day appeared to be had by all, with minimal body damage to vehicles, and not much mechanical (except for Ian Maud who went missing on the first run and failed to register a time).

The next round of the Club Championship is Round 4 of the VHCC at our track, conducted by PIARC. Check their website for entry information. Our next GCC Multiclub Hill Climb will be held on Sunday, June 6. Entries for these events is via the Motorsport Australia portal. *(Ed: photos next page)*

Multiclub hillclimb 14/3/21:

Kevin Wilson was taking photographs at the track and has kindly allowed these to be included here:



SOME KEYNOTE DATES IN THE LIFE OF THE GIPPSLAND CAR CLUB – 1961 TO 2008

-(John Bryant)

July 26, 1961 A group of enthusiastic young men met in Traralgon to draw up a Club Constitution to be forwarded to CAMS for affiliation

The Club was known as the Latrobe Valley Motor Sports Club, and its objectives were to develop a safe driving conscience and promote sportsmanship and fellowship amongst its members, the motor sports fraternity and the general public

July 28, 1963 First hill climb at the Latrobe Road property.

May 1964 Review of the Constitution

July 1, 1964 Club name changed to Gippsland Car Club

July 17, 1968 M&DCC joined as a branch of the GCC

September 12, 1969 First meeting of the Warragul Branch of the GCC

September 24, 1969 GCC invited to present a submission to the Moe City Council for a proposed race circuit on the shores of Lake Narracan (a diagram of the proposed track is in the possession of the GCC)

November 19, 1969 Public meeting conducted by the Moe City Council to investigate the raising of finance for the proposed race circuit – committee of seven formed

April 17, 1970 New hill climb track design accepted by the GCC Committee

April 29, 1970 Finance Investigations Committee formed to raise finance for the new hill climb design (different design to the gravel hill climb in use up to that time)

July 29, 1970 Title for land for new hill climb track transferred from APM to Morwell Shire Council

April 5, 1971 Warragul Branch of the GCC closed

March 4, 1973 First event at the new asphalt track

July 1973 Scuderia Gippsland amalgamated with the Gippsland Car Club

September 19, 1976 Victoria – NSW Hill Climb Challenge inaugurated

November 27, 1977 Australian Hill Climb Championship held at Gippsland Park – 117 entries including such notables as Peter Brock and Peter Janson, both in A9X Toranas. Championship won by Camperdown farmer Ian Judd in his Cheetah Oldsmobile with a time of 34.1 seconds, on a countback from Peter Larner (noted engine builder). Peter Brock won the Touring Cars with a time of 35.8 seconds (he had never been to the track before)

May 1979 Looking at two alternate sites on which to conduct additional events – a hill climb track in the Yallourn Township, and grass track racing at the Gippsland Field Days site at Lardner Park. Both were well advanced in organisation, with entries in for both events, but neither occurred due to last minute problems (hill climb track in Yallourn bulldozed the day before the event, whilst CAMS/Gippsland Field Days politics intervened in the Lardner plans)

1986 The infamous hump just after the start removed due to the realignment of Latrobe Road

October 13/15, 1989 Australian Hill Climb Championship – 82 entries. Won by Alan Hamilton in his Lola T87/50 with a record time of 31.60, from Garry McFadyen of NSW in his Bowin Hay with a time of 31.73 seconds. The track was resurfaced some weeks prior to this event

1989 to 1999 The Club conducted up to four rounds of the Victorian Hill Climb Championship each year, and the track became increasingly popular as a venue for other Clubs to conduct events. Most years saw between 25 and 30 events conducted at the track

October 28/31, 1999 Australian Hill Climb Championship - 125 entries. Won by NSW driver Peter Gumley in his SCV with a record time of 29.27 seconds (Peter recorded times in the 28 second bracket in practice)

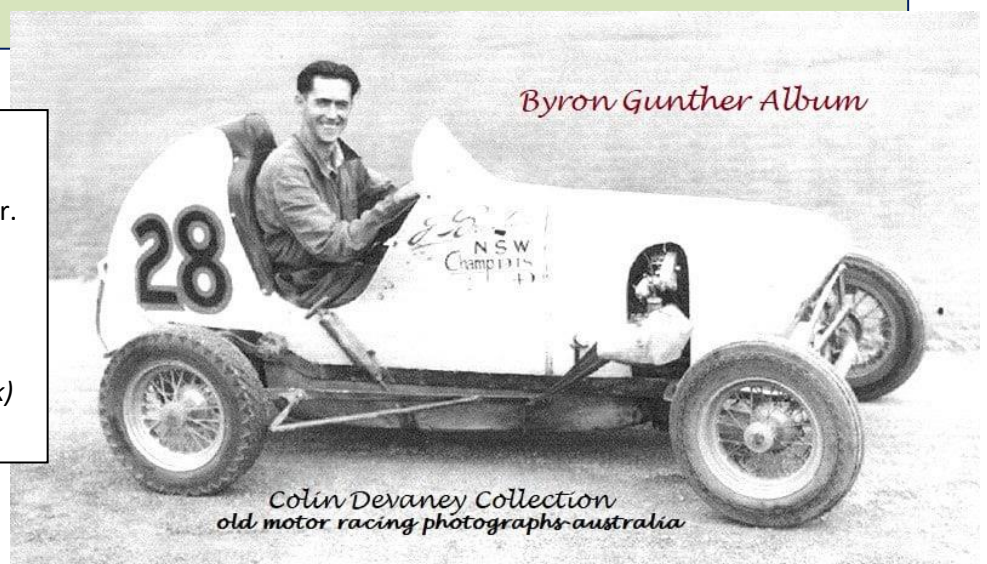
1999 to 2003 Track used at least once per fortnight for hill climb events, as well as becoming the starting point and central control for a number of rallies. The use of “The Farm” became more regular, with approximately 6 to 8 motorkhanas and khanacrosses conducted each year. A huge increase in membership occurred during these years, with the Club having approximately 400 members. GCC hill climbs were attracting increasing numbers of competitors, with many having between 75 and 100 competitors

2004 The Australian Hill Climb Championship again – the last to be held at this venue, as the Club had agreed to vacate the premises, and with permission and financial assistance from Yallourn Energy, create a new track in the Haunted Hills area between Moe and Morwell. Peter Gumley led the AHCC all event in his SCV until the final run of the racing cars, when Gary West from WA went across the finish line sideways to take the win, driving the same Lola T87/50 as used by Alan Hamilton in 1989.

2004 to April 6, 2008 The Club continued to conduct many rounds of the VHCC as well as multiclub hill climbs and motorkhanas and khanacrosses. April 6 was the last hill climb held at the track, and then in the space of three months, everything was packed up to be ready for the first event at the new track on July 6, 2008. The Club was looking forward to the new track, and also to the 2009 Australian Hill Climb Championship which had been allocated to the Club whilst the track was still in the planning stages.

Another appearance by Sir Jack Brabham: this one noteworthy for being very early in his racing career. This photo was taken during his speedway years, in 1949.

Source: Old Motor Racing Photographs – Australia (Facebook)





PHOTOGRAPH OF THE MONTH

READERS and photographers from Australia and New Zealand are invited to submit any number of their best photographs every month for selection as SCW's PHOTOGRAPH OF THE MONTH. The subject need not be of motor racing, and enthusiastic photographers have no limitations whatever apart from the fact the photographs submitted should in some way pertain to automotive subjects. Photographers should supply black and white prints only, no smaller than 8 in. by 6 in. The winning photograph each month will bring the photographer \$10. With your entry, supply all relevant information of type of camera, film and exposures. Send your entry to: The Editor, Sports Car World, 142 Clarence Street, Sydney, N.S.W., 2000.

#



Jon Smith, of Melbourne, Victoria, caught this Datsun works car performing some gravity-defying feats at Bathurst during the Hardie-Ferodo 500. The photograph was taken on the left hand exit of the Dipper. Smith used a Pentax camera fitted with the Sun zoom lens using Tri-X film at normal rating.

SPORTS CAR WORLD, March, 1969 75

FOWLERS ASPHALTING

PO Box 199 Trafalgar Vic 3824

Bryant Park track was asphalted by Fowlers Asphalting
For domestic and industrial asphaltting services, please call 03 56332918



Pistons – mysteries explained.

---by Bill Freame

Ed: this continues from last month's article on piston design and manufacture. Bill is very well qualified to speak on this topic, as he was not only a piston 'guru' at the Repco Technical Centre, but eventually left there to begin his own business in partnership with a fellow former-Repco technician ...designing, forging and machining specialty pistons!

It does become rather technical, but if you're struggling, I'm sure the last section will impress. Enjoy.

Heat Treatment:

Aluminium pistons, regardless of the method used to manufacture them, must be heat treated to raise the hardness to an acceptable level, to make the casting dimensionally stable and to facilitate the machining of it. T5 is the basic heat treatment of 'age hardening' and has the items stacked in an oven for about 7 hours at about 200 degrees Celsius, seeking to achieve a hardness of up to 120 Brinell. T5 was considered to be acceptable for your run-of-the-mill Holden and Ford pistons in road engines, as some were cast with steel struts that were supposed to reduce and control the expansion of the casting, and thus they could be used at tighter clearances. Heavy-duty diesel pistons that have a high nickel/cast iron-armoured top ring carrier cast into the aluminium casting (for longevity) can also only ever be heat treated to T5 to maintain the bond between the aluminium casting and the cast iron insert.

For a more durable piston assembly, cast or forged, the piston blank will have been 'solution heat treated' before the age hardening process. Pistons will be referred to as having been heat treated to either T6, or T61 which is a slight temperature alteration to the normal T6 process. This is a far more complicated process, involving a much higher temperature to a sufficiently long enough time for the additional minor chemical compounds that are included in the aluminium alloy to go into solution within the aluminium material, followed by a sudden water quench into very hot water. Silicon at up to 15% is one of several elements that should convert into complete solution within the aluminium alloy during this T6 process. After the further process of aging, the hardness of the component (cylinder head, gearbox casing, piston etc) will be around 130 Brinell, and the overall strength of the piston plus the scuff resistance in the pin hole and ring rooves will be very much improved. What's not to like about that for sustained long piston life?

By air quenching piston castings immediately after removing them from the die, the effect of a T6 heat treatment can come very close to the real process as described above. It will be close enough to the real T6 process to perform as required, and will fool car company quality control testing! That will save money and should certainly make the piston manufacturers cost accountants very happy.

Hardness testing of any aluminium casting will usually be by using the Brinell measuring machine. This will be by pressing a 10-millimetre ball indenter into any flat surface being tested, using a 1000kg load. The resulting impression into the surface will then be accurately measured using a calibrated microscope and a suitable chart. A big ball indenter is necessary to even up the variations

across the casting microstructure. Any smaller indent, such as from a Rockwell tester should only be used to measure hard metals, such as the hardness of the piston pins that will rotate in the pistons.

A piston will soften from its original hardness with use. The more extreme treatment and operation it is subjected to, the bigger the variation of hardness that will be measured across it. When the piston is in operation, the piston crown is continuously subjected to heat from the combustion process, and thus it is tolerated and expected to have softened off more than the remainder of the piston. Aluminium alloys will lose some of their hardness when subjected to temperature over a prolonged time of operation. The higher the temperature it is subjected to, the more reduction will occur across the affected area. Sustained operation at full throttle and high revs, especially with forced induction (turbocharging) can have the piston crown subjected to over 300 degrees Celsius. Even ceramic coating of the crowns and oil squirters to the under-crown will only pull a few degrees out of the piston crown. Nowadays, with lean-burn parameters being built into the engine ECU on the production line, it is very easy to subject your pistons to the extremes of temperature during towing or car/ boat racing. By comparison, unless an engine has been excessively overheated, there is very little likelihood that the lower sections of the piston will have lost much of their original hardness.

Thus, during any problem investigation, the area around the bottom of the pin boss will usually be considered to be very close to the hardness of the piston when originally manufactured. Whenever the crown is found to be 20 points or more softer than the pin boss, the loss of hardness will be considered to be by abnormal combustion, possibly due to un-noticed and un-heard detonation. Detonation is a piston killer and can cause broken rings, ring lands and scuffing of skirts, (probably) on the thrust side first. Now with the ability of easily adjusting an aftermarket ECU or by adding a piggy-back chip, by anybody with a lap top computer, it has become very easy to build disaster into your engine - quite expensive disaster.

Machining the Piston Blanks:

It should be quite obvious that high-volume piston castings are usually designed so that they will require very little machining to have them ready to be installed into an engine. Crank rotation clearance and adequate valve pockets may already be provided on the blank, at the casting stage. Thus, the casting just needs some external machining: ring grooves, pin hole boring and cam grinding, or cam turning and the piston is finished! Usually with a forged piston blank, there is far more machining required to produce a finished piston. A forged piston blank has no pin hole and so is much more versatile and can be machined to accommodate any realistic compression height as the pin bosses are solid to permit the pinhole to be at a large range of under-crown dimension.

My preferred method of forged piston machining is to plan the job first. That requires determining where the crown shape will fit with regards to the under-crown shape and dimensions. I consider four millimetres of crown thickness to be the absolute minimum required and that can be through a valve pocket or the centre of a bowl for a turbo. At the planning stage, when going to the expense of having forged pistons manufactured, that is the time to consider substituting alternative connecting rods of an increased length. A change of rods can also introduce a smaller diameter, fully floating pin and for slight



Southern Cross diesel piston. All grooves, seeps and chamfers machined in a powerful lathe with the one groove block, at the same time!

Photo: Bill Freame

stroke increases, a smaller diameter big end journal. Bigger valve head diameters and big cam lifts may also need to be considered at the planning stage.

In extreme stroke/rod length combinations, the pin hole might end up intruding into the oil groove. In that situation, the oil groove should have an oil ring rail support to prevent the bottom oil ring rail from winding out of the groove and into the pin hole. Working in conjunction with the desired crown shape and under-crown shape, the compression height is then determined and the location of the pin hole to under-crown can be marked on the outside of the blank for rough drilling close to the approximate correct location.



Author's piston for 65mm FIAT 850 engines: a casting, and a used piston sectioned.

Photo: Bill Freame

All the piston blanks sharing the same part number should have almost identical internal dimensions - close enough for all the turning operations to be done on a very close-fitting fixture made for the machine, to locate it securely and machine all the external surfaces; lands, grooves and crown. This works very well for any high-volume production; the tooling cost being very quickly recovered.

Ross Ford Windsor @12.5:1 comp and 6-inch con-rod. Lots of sharp corners on crown!

Photo: Bill Freame



I am 'old school,' so I have always used a range of individual diameter spigots to locate the piston blank on various jigs and fixtures, throughout the manufacturing process. Using a lathe, a spigot register is machined into the bottom of the blanks, all to exactly the same depth to the under-crown! Variation in depth here may affect the finished weight across the batch. Next operation for forged pistons is to drill a hole in the pin bosses, at the correct measurement from the under-crown, but smaller than the finished pin size. For most forged pistons the pin hole will be on the centre line: only Mahle forged blanks may have an offset pin boss, in my experience. This rough pin hole is now used to pull the piston blank and spigot onto a fixture, again in a lathe so the skirt, crown, ring lands and ring grooves can be machined, as required. Any lumpy top crown shape will only be machined to the major compression height, the required complex shape and minor compression height to be machined on much later. I prefer to keep the crown flat for all the other machining operations still to be done. At this time the piston probably still looks like a 'jam tin' and is easier to hold/clamp it for all other machining operations still to happen.

For one set of pistons the ring grooves will only be machined if I have all the rings that will be used on the set of pistons. For some pistons, all the ring grooves are machined into the piston at the same time, thus there is a complete groove block assembled complete with seeps and chamfers set to the various depths required. Sometimes I will decide to just machine the oil groove at this time so I will

be able to drill drain-back holes in the oil groove after pin hole boring. This is especially considered if it is a very short compression height, and preferred by me so that the compression grooves can't be damaged during other, later machining operations. I use only solid carbide grooving tools, with very accurately radiused corners to produce strong ring lands. ACL were eventually using synthetic diamond groove tools for finishing the grooves for some of the high-volume car company pistons, but the cost of these groove tools was certainly well outside my price range and not really necessary, in my opinion, as most of my customers were interested in performance, not minimising emissions.

Pin holes are machined to the required compression height. This can be in a dedicated boring machine, or on the saddle of a lathe, or on a milling machine. With the luxury of a dedicated boring machine, I install the piston mounted head down on a vertically adjustable table and between two boring heads, one used for roughing the pin hole and the other to fine bore to size. The borer uses a spade drill to rough out and remove the bulk of the material. The finishing off spindle uses an adjustable boring bar, with solid carbide tools that only remove the final one or two millimetres of the pin hole. High-volume machining may also have some finishing boring bars that use diamond tools but won't take the heavy cuts that the carbide will, but a carbide tool is still used for roughing.

Circlip grooves are done next, on a fixture that spins the piston on the pin hole centreline, in a lathe. The tools that machine the circlip grooves are optically ground to shape, so that the grooves are also chamfered to include a deburr, when machined to the correct depth. Oil groove drain-backs, side contours and circlip notches are all machined in a milling machine. If the ring belt needs to be reduced internally that is also done in a milling machine, where it is easy to see how much to remove by the drain-back drillings. The gap between the pin bosses can also be machined at this time, if required to accommodate a wide con-rod little end.

The forging is returned to the lathe again, this time to machine the compression grooves, the minor compression height and crown shape. The compression grooves should have 0.002" side clearance while the oil grooves need to be the nominated oil ring width. Therefore, a 3mm or 4mm oil groove should be machined to that width as the ring manufacturer is expecting their ring to be installed into a groove of that correct width. I draw attention to that fact as it is sometimes necessary to widen the oil groove during a re-ring of a used piston so that an available 3-piece oil ring can be used. British motorcycles often used a 1/8" cast iron oil ring and no ring manufacturers make 3-piece oil rings of that width.

If the piston is to have a circular or irregular bowl machined in the crown, now is the time to machine that and any valve pockets. Crank clearance machining is done after trimming to the correct overall length and then pin hole lubricating holes drilled before going to the piston grinder to put the cam onto the skirt, usually a competition grind with 0.55mm drop. High-volume pistons will instead be cam-turned using a carbide-tipped tool to remove most of the metal and a diamond-tipped tool to finish to the correct diameter with an attractive surface finish, pleasing to the eye. This has proven to be a much faster process than grinding one at a time, whereas cam-turning the skirts can be done two pistons at the same time. This was how the Nissan 200B and later pistons were machined by Repco.

Finally, I always carefully deburr all of the sharp edges, top and bottom and check weigh all the assemblies, regardless of who machined the pistons. The bottom of the pin bosses is a highly stressed area and should never, ever, be machined during any balancing operations. Check fit the pins at the circlip grooves before the rings go on the pistons! Finally check that the rings are correct for groove depth, side clearance and bore size.

Conclusions:

As you will have noticed by reading this far into this article, piston manufacture can be very labour intensive. I've found it has always been very nerve wracking observing an engine being tuned on any engine or chassis dynamometer if it's an engine that is running with pistons you have made and revving to some astronomical numbers as the tuning proceeds. Being present when all this is now happening can be a very worrying time, but if the numbers are as good as or better than expected, it can be very satisfying. Forged pistons can be low compression for a high-boost turbo engine, or they can be very high compression for high-revving, naturally-aspirated race engines. Either installation will stress the components, hopefully for a very long time before needing replacing.

Consider the conditions they may be subjected to during their active life. Drift engines can be on the red line at high boost for most of their competitions. World of Outlaws speedway engines are 410ci methanol-fuelled and are delivering around 900bhp, at up to 9000rpm. Driven mostly sideways, often they can also suffer from muddled radiators which can cause the temperature to rise! Top fuel dragsters are claimed to be delivering around 5000bhp, (more or less) and swallow vast quantities of mostly Nitro Methane on the strip, with a complete strip and rebuild between rounds, not events!!!

Under just as extreme operating conditions, the Formula One 1600cc V-6 engines are highly turbocharged, and with the assistance of the turbo driven hybrid system are producing almost 1000bhp, their rules permit them to have a compression ratio of up to 18:1, using up to 20:1 air/ fuel ratios, and on unleaded petrol!!! Maximum fuel flow is limited to 100kg/hour with the exhaust temperatures exceeding 1000 degrees Celsius. Despite this, the teams are only allowed three engines per car for the season, meaning they have to survive at least four race meetings comprising practice, qualifying and the races themselves, with little more than oil sampling and installation spanner checks permitted.

NASCAR events on the ovals are never short races. With drafting against the rear of a car in front limiting the airflow through a radiator, engine coolant temperatures can skyrocket as the cars jockey around for any advantage they can get. NASCAR now permit the use of special components to ensure these pushrod V-8's can survive a 500-mile race, while regularly being spun up to 9000rpm.

There are some piston manufacturers around the world that make pistons purely as a neat business opportunity to make money and most of them do make reasonably good pistons. There are also a small quantity of piston manufacturers who are very passionate about providing product to be used successfully in elite motorsport applications, and they strive to make the very best pistons that will succeed under the most demanding of conditions and at the very highest level of motorsport, be it Formula 1, NASCAR, Le Mans, Indy 500 or MotoGP. May there be a continuing demand for their products a long way off into the future of motorsport.



Just to show what's possible in pistons: These photos are of a dedicated slipper forging, for a single-cylinder Husqvarna engine of 79mm bore, 0.7mm compression ring and 1.5mm three-piece oil ring. The piston pin is about as close to the bottom ring as is possible, and the skirt is *very* short: a mini skirt, perhaps? Light, strong and resilient.

Photo: Bill Freame



MACHINING & CYLINDER HEADS

28 CHICKERELL ST MORWELL phone 51344023
email: simon@btrmorwell.com.au

- Cylinder Head Reconditioning
- New Cylinder Heads
- Torque Plate Boring
- Diamond Honing
- Flywheel Grinding
- Engine Reconditioning: Petrol and Diesel
- Engine Balancing, Crankshaft & Flywheel
- Crankshaft Grinding And Crack Testing
- Pressure Testing Of Cylinder Heads
- Petrol Injector Reconditioning & Testing.



SPECIALIZING IN DYNO TUNING CARBURETOR'S



Simon@btrmorwell.com.au

5134 4023

**When the car you used to draw in
kindergarten pulls up next to you...**



Replicas in the Crosshairs.

-Ian Maud



1957 Maserati 350S
(original)

Source:
www.ultimatecarpage.com

Here's something to bring a tear to the eye. I read an article some months ago about the building of a replica Maserati 350S by a company in Europe. This was a 2-seater, open-top, aluminium-bodied replica of one of those beautiful classics from the 50s, with swoopy body lines, Boranni wire wheels, some jewel-like Italian v12 engine with a collection of Webers hanging off it: you know the sort. Bring it out at a car gathering, and grown men have been known to salivate uncontrollably. You get



Maserati V12

Source: www.ultimatecarpage.com

the picture. This car included a number of original and impossible-to-get parts, including one of only three original motors known to exist, featured an all-new body hand-formed by artisans, assembled by a professional team...all the right things. It was a thing of great beauty. And cost – enormous cost. The only trouble is, it does not exist any more. It is an ex-replica. It is but a memory. You see, Maserati took exception to it, and in 2006 took the company behind it to court, claiming they had infringed their copyright or some other legal kaffuffle...and the car was taken away and (sob!) crushed, then incinerated just to be sure. Yes, even the original parts. I was stunned for days afterwards at such a loss.

I write this, as it's happening again. My latest edition (April) of *Classic and Sportscar* magazine features a lead article about a Swedish couple whose company built a very nice-looking replica of a Jaguar C-type race car, with the intent of producing several for sale. "No, no" said Jaguar Land Rover: "This is not allowed." And so, it too, went to court, with the judge ruling in favour of JLR, ordering the destruction of a C-type fibreglass body; their one complete car (under dispute at present); payment of JLR's £450,000 legal costs; and a 'cease and desist' command in place. Similarly, in 2010, a replica fibreglass-bodied Mercedes 300SL was ordered destroyed (see photos next page). Also, Suffolk Sportscars (a builder of replicas) in the UK has closed its doors as the result of legal action from JLR, owing debts of £800,000.

Why is this happening? After decades of pretty well ignoring the heritage aspects of their cars, and in some cases, applauding the construction of good-quality replicas, companies such as Jaguar Land

Rover, Mercedes, Ferrari, Maserati and so forth have successfully had the courts rule that iconic vehicles such as the C and D-types, 250GTO, etc are original 'artwork,' and therefore cannot be copied for commercial gain. To explain this, if you've knocked up a pretty good version of a Ferrari GTO in your backyard, you're apparently fairly safe. (By way of a serious example, I think of the exquisite D-type replica built by the late Graeme Longmore of Tyers – the hours and the care that he put into that were impressive: now that really *was* a work of art.) What you cannot do is then offer to make your mates one, for money. Anyone who builds a replica to sell is now liable, it would seem. This simple distinction must have replica makers around the world feeling weak at the knees. For example, how many replica GT40 and Cobra makers are out there? How many companies have built a replica 'Bullit' Mustang for sale? And here in Australia, you probably couldn't count the number of XU-1 and GTHO replicas. What if Ford and Holden (bless their bottom lines) decide these are a breach of IP? Scary stuff!



Graham Longmore's beautiful Jaguar D-type replica.

Source: Steve Schmidt

One area where the replica conundrum really raises hackles is in historic racing, especially in places such as the UK where it has reached a religious fervour almost beyond imagining. While members of the GCC would count the costs of their motorsport in the thousands, or perhaps tens of thousands,

historics in the UK run to budgets of millions – literally. It's a different world. So, imagine the furore when Arthur Pennington-Smythe *esquire* has his team open the climate-controlled transporter and unload his 1930-something Bugatti *super-le-rare* that is worth the GPD of a small country, and is faced with a competitor polishing a replica of the same car, only worth a humble many hundred thousands of pounds Sterling. It's just not cricket, apparently. Two arguments have been raised: the first is that Pennington-Smythe will display some restraint in his racing due to the extreme value of his mount, whereas the imitator can go flat-out, risking a far lower reduction in his bank balance if he stuffs it into the Armco. The second, and more financial-based concern, would be that if your original vehicle is one-or-a-kind and highly valuable as a result of its rarity, then having a field of a dozen look-alikes must inevitably lower the resale value of your 'investment.' And so, these well-heeled racers are bringing pressure to bear on the classic car authorities to not recognize replicas, even if they are built largely from period-correct, original parts. This is a 'touchy' topic in classic circles, and one we will no doubt hear more of.



Glassfibre Mercedes-Benz 300SL was ordered to be destroyed in 2010.

Mercedes Benz 300SL replica: before, and now.
Source: Sports & Classic Cars magazine, April, 2021

CLUB MEMBER PROFILE:

Jill Hickey



- Your name: Jill Hickey
- Years of membership of GCC: 15
- Cars of interest owned: Toyota Corolla Seca...ke20 Toyota Corolla
- Your first car was: a British racing green Ford Capri
- The best car you ever owned was: A Club Sport
- The worst car you ever owned was: I loved all my cars
- Your biggest car-related disaster:
- Your greatest moment in motoring was: racing my first hillclimb // the sense of achievement...feeling so proud of myself that I could do this...overcoming the nerves ..gaining confidence
- Your most-admired driver is (and why?): Melinda Price, Peter Brock, John Bowe, Ayrton Senna
- Your favourite driving circuit/track/road/area, & why: Haunted Hills hillclimb track...Sale sprints at the Air Force base
- A phrase you say regularly: Lovin' life
- Finish the sentence: I will die satisfied if.....I got to do hot laps with John Bowe, or hot laps in a Lamborghini
- What is something few GCC members would know about you? I'm a nana of three gorgeous grandchildren, and I own two race cars.
- Who or what do you think has been a great influence in your life? My dad. His love for cars was instilled in me.
- Any other insights you'd care to share? My husband got me started in racing 10 years ago and I haven't looked back...I can't thank him enough...love my racing, I can't get enough...lovin' life!

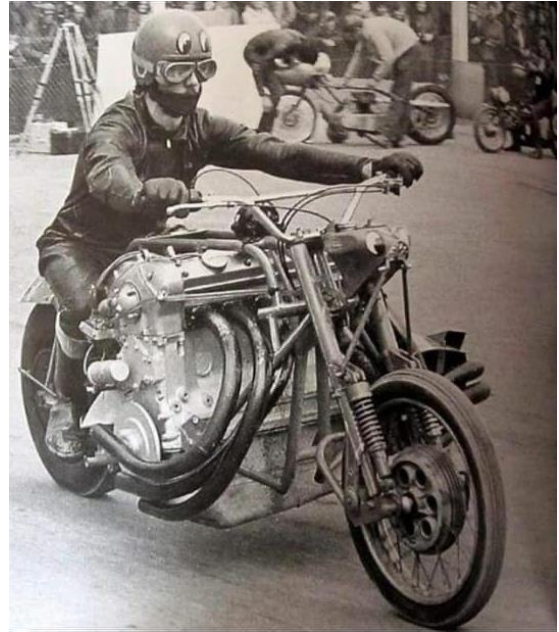


Ed: more photos follow on next page



...and a couple of parting shots:

Not sure of the event nor the rider, but it's a drag bike from the 1960s, and that very brave man is sitting astride...a Jaguar 6-cylinder motor!



And a great shot of Ron Hodgson three-wheeling his Cortina GT down the Bathurst esses. Note the personalized number plates – you don't see those any more on a race car!

Oversteer is when the
passenger gets scared



Understeer is when the
driver gets scared

MOE PARKLANDS MOTEL



- Closest motel to Bryant Park!
 - 3.5 stars
 - Family restaurant next door
 - Guest Laundry
 - BBQ area
- Car and trailer parking
 - Free wireless internet
 - Solar heated pool
- At the Moe Parklands Motel, we invite you to picnic or use the guest barbeque in our delightful gardens.
 - For your evening meal, Rookies Bar and Restaurant is next door.
 - A dip in our solar-heated pool will relax you at the end of a day enjoying all that Moe and surrounds has to offer.

RECEPTION HOURS : 7.30 am to 9.30 pm

98 Narracan Drive, Moe, Victoria

Telephone 03 5127 3344

EMAIL: stay@moeparklandsmotel.com.au

WEBSITE: www.moeparklandsmotel.com

GIPPSLAND CAR CLUB

KHAMACROSS

March 28, 2021

RESULTS

Outright	NAME	CLASS	Rank	R1 Time	Penalty	R2 Time	Penalty	R3 Time	Penalty	R4 Time	Penalty	R5 Time	Penalty	R6 Time	Penalty	R7 Time	Penalty	R8 Time	Penalty	TOTAL
1	Matthew Paulet	Hyundai Excel	F	70.29		30.72		30.63		34.22		34.25		42.61		53.61		68.58		384.91
2	David Mackrell	Mazda MX5	C	73.08		29.71		30.14		36.31		36.56		46.85		54.63		74.36		381.24
3	Peter Ferguson	Mazda MX5	C	73.81		31.97		30.69		37.43		36.88		43.71		56.26		76.81		386.56
4	Scott Seddon	Volkswagen Golf	G	71.92		31.29		31.32		35.56		36.12		43.52		58.12		81.25		388.10
5	Sarah Wijeloon	Mazda MX5	C	74.31		29.45		28.60		38.44		36.56		44.80		55.59		82.32		390.07
6	Steven Cassar	Mazda MX5	D	71.03		33.90		32.41		35.34		36.34		57.70	2T	57.81		72.85		396.88
7	Andrew Tate	Mazda MX5	D	70.41		WD		31.02		35.78		36.50		43.28		59.31		69.82		397.83
8	Paul Freame	Fiat Punto Sport	D	76.42		34.27		30.13		38.10		38.50		53.12	T	54.72		77.39		400.66
9	Ajith Pereira	Mazda MX5	C	86.50	T	30.17		31.18		36.22		37.43		46.52		59.43		78.11		404.56
10	David Selter	Mazda MX5	C	78.89		34.28		40.19		38.91		38.91		48.71		62.25		78.83		414.91
11	Steven Potts	Morris Mini	C	77.22		30.77		30.66		37.60		36.53		45.28		WD		78.51		414.92
12	Dean Evans	Holden Commodore	D	80.83		32.41		34.10		37.91		37.81		47.79		59.63		85.57		416.05
13	Mark Newton	Holden Commodore	D	75.01		F		34.39		38.59		37.50		45.72		57.88		77.85		421.20
14	Matthew Selter	Subaru BRZ	D	FS		32.72		33.62		38.00		37.54		47.08		59.15		73.75		423.07
15	Thomas Foley	Audi S3	G	80.74		33.42		32.95		37.65		41.97	F	52.50	F	57.78		89.01		426.02
16	John Friebe	Mazda MX5	C	77.65		31.55		30.66		38.63		38.84		48.59		77.22	T	80.11		427.51
17	Christopher Friebe	Mazda MX5	C	77.80		30.12		30.46		41.41		40.35		52.24	T	58.38		80.11		428.78
18	Neil Roshier	Ford Fiesta	C	75.74		WD		29.50		38.16		41.53		44.52		53.28		81.35		435.68
19	Joseph Maccora	Mazda MX5	C	75.31		30.12		30.46		40.82		40.34		53.02		66.57	F	81.35		443.56
20	Byron Townsend	Austin 1800	F	87.56		31.95		41.14		43.69		40.34		52.63		64.93		82.85		448.17
21	Benjamin Selwyn	Hyundai Accent	J	83.72		37.55		37.23		42.44		38.85		WD		61.44		85.46		448.37
22	Robert Krysman	Mazda MX5	C	81.53		34.31		33.35		39.91		41.56		62.28	F T	70.16	T	82.06		451.35
23	Jonathan Vasilis	BMW 316i	C	82.10		31.75		31.97		42.10		42.72	F	52.30	T	60.90		82.06		456.58
24	William Roshier	Ford Fiesta	C	93.08		34.61		WD		WD		38.00		46.80		57.85		77.55		463.11
25	Tom Green	BMW	D	88.42	X	WD		WD		WD		40.60		51.69		69.84		87.98		463.11
26	Rael Bellemann	Mazda MX5	C	80.17		WD		WD		WD		38.00		46.80		57.85		77.55		463.11
27	Dallas Benbow	Fiat X19	C	85.45		32.97		35.07		41.34		40.60		51.69		69.84		87.98		463.11
28	William Freame	Fiat Punto Sport	D	80.05		30.75		33.53		43.22		41.83		50.74		63.34		87.98		468.26
29	Ian Mayze	MGB Roadster	C	WD		38.27		37.52		41.60		41.83		50.74		63.34		87.98		471.16
30	Terrence Selwyn	Hyundai Accent	C	89.08		WD		35.54		45.80		WD		50.24		58.86		87.98		480.42
31	William Morgan	BMW E38	C	89.08		41.13		WD		45.80		42.38		50.24		58.86		87.98		480.42
32	Mitchell Newton	Holden Commodore	D	80.10	2T	WD		52.70	F	56.44	T	37.87		47.56		61.08		87.36		487.58
33	Thomas Nikitaras	Volkswagen Golf	D	82.20		38.98		WD		WD		50.00		60.30	T	73.37		81.55		513.14
34	Emily Newton	Holden Commodore	D	86.21		42.35		42.35		47.87		50.37		67.40	F	74.50		102.51		529.94
35	Alyssa Perks	Mazda MX5	J	105.50		38.75		42.35		48.56		40.65		72.40	F T	83.25		107.04		558.90
36	Michael Graham	Mazda MX5	C	82.87		WD		WD		56.72		55.72		65.32		83.25	T	114.59		596.62
37	Jack Priestly	Subaru Forester	J	121.39		WD		52.36		56.72		55.72		65.32		83.25	T	114.59		596.62
38	Zara Priestly	Subaru Forester	J	120.08	F	WD		52.36		56.72		55.72		65.32		83.25	T	114.59		596.62

Penalties noted in TIME column have Slowest Time + Penalty Applied																				
Slowest Time Senior	98.21	49.48	47.70	51.44	50.00	72.49	73.37	91.55												
Slowest Time Junior	121.39	38.75	52.36	56.72	51.81	65.32	84.25	109.59												

Penalties Legend	
F Strike course flag/cone	Time +5 secs per marker
T Leaving Track bounds	Time + 5 secs per incident
X Finishing with part of vehicle outside garage	ST + 5 secs
FS Failure to Stop in Garage	ST + 5 secs
WD Wrong Direction	ST + 5 secs
FC Failure to Complete the Test	ST + 5 secs
DNS Did not attempt test	ST + 10 secs

CLASSES	
C Production 2WD up to 2000 capacity	
D Production 2WD 2001 and over	
G Production 4WD	
F Special	
J Junior	

HIGHLIGHTED TIME INDICATES FASTEST TIME OF RUN (including any penalties)

NEXT GCC KHAMACROSS:

May 23, 2021

2021 GCC KHANACROSS CHAMPIONSHIP

		R1 21-Feb	R2 28-Mar	R3 23-May	R4 27-Jun	R5 15-Aug	R6 12-Sep	R7 31-Oct	R8 12-Dec	Total
OUTRIGHT										
1	Matthew Paulet	20	20							40
2	Scott Seddon	17	15							32
3	Peter Ferguson	10	17							27
4	Sean Priestly	15								15
5	Neil Roshier	5	9							14
6	David Thirlwall	13								13
7	Dean Evans		13							13
8	Mark Newton	2	11							13
9	Byron Townsend	4	8							12
10	William Roshier	6	6							12
11	Blake Coady	11								11
12	Thomas Foley		10							10
13	Rhys Yeomans	9								9
14	Benjamin Selwyn	1	7							8
15	Carrie Thirlwall	8								8
16	Mitchell Newton	7	1							8
17	Terry Selwyn	3	3							6
18	Tom Green		5							5
19	Ian Mayze		4							4
20	William Morgan		2							2
	Alyssa Perks									0
	Emily Newton									0
	Jack Priestly									0
	Zara Priestly									0

Production 2WD up to 2000 capacity										
1	Peter Ferguson	20	20							40
2	Neil Roshier	13	17							30
3	William Roshier	15	15							30
4	Terry Selwyn	11	11							22
5	Rhys Yeomans	17								17
6	Ian Mayze		13							13
7	William Morgan		10							10

Production 2WD 2001 and over										
1	Mark Newton	11	17							28
2	Mitchell Newton	13	13							26
3	Sean Priestly	20								20
4	Dean Evans		20							20
5	Blake Coady	17								17
6	Carrie Thirlwall	15								15
7	Tom Green		15							15
8	Emily Newton		11							11

Production 4WD										
1	Scott Seddon	20	20							40
2	Thomas Foley		17							17

SPECIAL										
1	Matthew Paulet	20	20							40
2	Byron Townsend	15	17							32
3	David Thirlwall	17								17

JUNIOR										
1	Benjamin Selwyn	20	20							40
2	Alyssa Perks	17	17							34
3	Zara Priestly	15	13							28
4	Jack Priestly		15							15

GCC MULTICLUB HILL CLIMB

CLOCKWISE FIGURE 8 TRACK

Event Ranking

Rank	Number	Name	Club	Vehicle	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Time	Gap
------	--------	------	------	---------	-------	-------	-------	-------	-------	-------	-------	-------	------	-----

Circuit Excel

1	11	ORR Dennis	GCC	Hyundai Excel	74.13	73.11	72.68	71.77	71.68	71.29	70.93		70.93	
---	----	------------	-----	---------------	-------	-------	-------	-------	-------	-------	-------	--	-------	--

Formula Ford

1	501	SAMSON Mark	GCC	Spectrum 011b	61.12	60.32	60.17	59.96	59.95	59.64	59.88		59.64	
---	-----	-------------	-----	---------------	-------	-------	-------	-------	-------	-------	-------	--	-------	--

Formula Libre up to 1300

1	50	MINAHAN Peter	GCC	Hayward 07	58.30	57.44	57.03	56.88	56.68	56.18	55.53		55.53	
2	150	MINAHAN Bruce	GCC	Hayward 07	57.51	57.00	56.44	81.19	56.23	56.56	56.40		56.23	0.70
3	70	MOILE Ewen	GCC	Ramblebee MK8	59.46	58.36	57.89	57.24	57.73	57.46	57.50		57.24	1.71
4	151	CASEY David	GCC	Casey TH109R	61.09	60.10	59.65		60.28	58.29	58.67		58.29	2.76
5	41	WILSON Keith	GCC	Ninja BH1	70.89	65.17	63.45	63.97	63.49	63.52	63.04		63.04	7.51

Formula Libre 1301 to 2000

1	777	JANSSEN Wim	GCC	Wimp 004	58.90	58.31	56.48	57.20	57.01	57.04			56.48	
---	-----	-------------	-----	----------	-------	-------	-------	-------	-------	-------	--	--	-------	--

Historic Group N up to 2000

1	40	BOWER Geoff	GCC	Austin A40 Farina	75.32	74.76	73.29	73.53	73.53	74.95	75.97		73.29	
---	----	-------------	-----	-------------------	-------	-------	-------	-------	-------	-------	-------	--	-------	--

Historic Group N 2001 and over

1	721	KOGGE Larry	GCC	Holden Torana	64.69	64.88	65.06	79.43	65.64	65.49	65.04		64.69	
2	38	MCNIVEN Jim	GCC	Mazda RX2	68.14	68.16							68.14	3.45

Improved Production up to 2000

1	245	SELWYN Terry	GCC	Datsun 1600	65.86	65.30	64.86	64.25	65.43	66.07	65.22		64.25	
2	198	ASSAAD Naim	GCC	Toyota Corolla	73.08	71.19							71.19	6.94
3	131	MURPHY Paul	GCC	Datsun 1200	73.88	74.53	74.05	74.27	73.41	72.20	72.86		72.20	7.95
4	121	REYNOLDS Lloyd	GCC	Volkswagen Golf	75.25	75.37	73.96	73.86		73.70	73.58		73.58	9.33
5	98	ASSAAD Athan	GCC	Toyota Corolla	83.32	81.12							81.12	16.87

Improved Production 2001 and over

1	15	NEWTON Mark	GCC	Holden Commodore	70.38	69.48	68.15	68.17	67.93	67.51	66.73		66.73	
2	115	NEWTON Mitchell	GCC	Holden Commodore	70.09	78.44	71.27	70.11	69.35	70.29	69.04		69.04	2.31
3	37	BRADLEY Frank	VHRR	Mini R56	70.33	71.05	71.67	71.85	70.76	70.24	69.42		69.42	2.69
4	112	JOHNSON Laurie	GCC	Ford Probe	77.95	77.38	76.46	76.78	75.43	76.69	75.96		75.43	8.70
5	6	CAMPBELL Scott	GCC	Holden Commodore	79.14	78.98	78.98	79.65	78.86	78.22	77.10		77.10	10.37
6	248	BAKER Terry	TCCA	Holden Commodore	85.92	78.04	79.16						78.04	11.31

Junior

1	21	LEITNER Daniel	GCC	Subaru WRX	65.36	65.74			74.38				65.36	
2	555	GOOSSENS Brody	GCC	Toyota MR2	72.63	73.35	71.93	71.96	71.05	71.88	70.07		70.07	4.71

Clubman Sports Cars up to 1600

1	52	HOCKING Dale	GCC	Dalrick Clubman	64.40	63.58	65.64	64.22	63.50	63.70	62.60		62.60	
2	171	BUFFINTON Steven	GCC	Westfield Clubman	66.07	65.25	63.26	62.76	79.28	63.08	63.37		62.76	0.16

Rank	Numbe	Name	Club	Vehicle	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Time	Gap
Sports Cars up to 2000														
1	83	SPEIGHT Ian	GCC	Mazda MX5	67.47			66.54	66.58	67.52	66.88		66.54	
2	43	VELLA Sei	GCC	Mazda MX5	70.09	69.69	68.85	68.36	68.97	68.36	67.91		67.91	1.37
3	55	GOOSSENS Michael	GCC	Toyota MR2	68.86	68.16	68.31	69.51	68.02	69.23	68.24		68.02	1.48
4	51	STIPKOVIC Sharon		Toyota 86		72.08	71.25	70.62	69.76				69.76	3.22
5	5	STIPKOVIC Jeffrey		Toyota 86	75.91	78.56	72.92	70.85	71.66	70.53			70.53	3.99
6	44	HESS Karl	GCC	Toyota MR2	72.08	70.81	70.63	71.21	70.67	71.30	70.78		70.63	4.09
7	42	SCHMIDT Stephen	VMCI	Fiat 124 AC	72.03	73.21	71.55	71.03	71.01	70.82			70.82	4.28
8	74	MAYZE Ian	GCC	MGB Roadster	72.70	72.58	72.79	72.46	72.14	72.51	73.56		72.14	5.60
9	243	VELLA Ray	GCC	Mazda MX5	76.17	76.45	76.84	76.94	76.32	75.07	74.44		74.44	7.90

Sports Cars 2001 and over

1	19	PRIESTLY Sean	GCC	Audi TT	76.04	73.68	72.38	73.57	72.03	71.47	71.67		71.47	
2	91	THIRLWALL Carrie	GCC	Audi TT	77.23	73.42	71.97	71.98	71.66	72.45	73.65		71.66	0.19
3	71	THORBECKE Lex	GCC	Toyota Celica	75.72	76.78	76.73	78.41	75.51	77.00			75.51	4.04

Sports Sedans up to 2000

1	12	YEOMANS Rhys	GCC	Honda Civic	63.46	62.50	62.09	71.35	62.48	62.37	61.98		61.98	
2	223	GREEN Michael	GCC	Hyundai Excel	67.85	66.95	65.84	68.81	66.37	66.21	66.19		65.84	3.86
3	7	MCIVOR Garry	GCC	Ford Escort	71.27	68.37		68.32	68.27	67.43	67.07		67.07	5.09
4	72	HICKEY David	GCC	Toyota Corolla	79.83	76.00	73.94	73.66					73.66	11.68
5	159	BRYANT Jarrod	GCC	Toyota Corolla	78.97	77.99	77.44	77.13	76.80	76.12	76.10		76.10	14.12
6	27	HICKEY Paul	GCC	Toyota Corolla	76.29	76.34	77.32						76.29	14.31
7	727	HICKEY Jill	GCC	Toyota Corolla	83.64	82.81	79.47						79.47	17.49

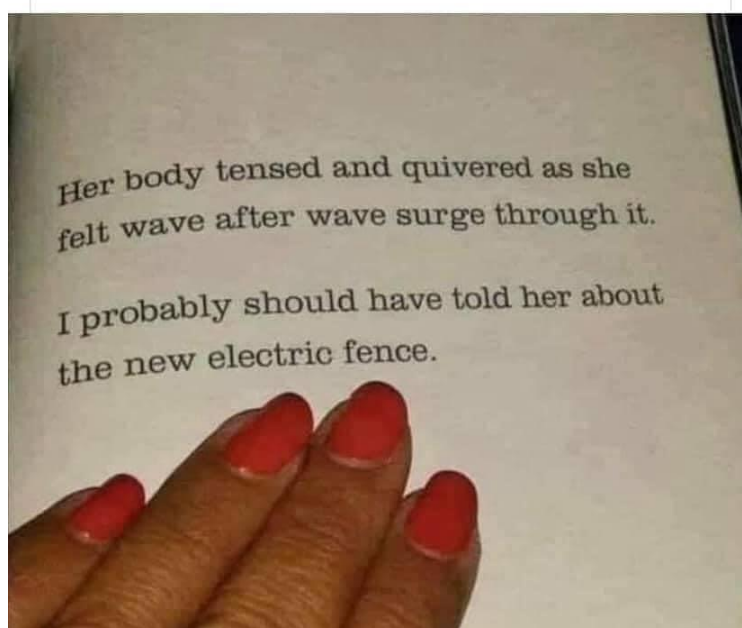
Sports Sedans 2001 and over

1	4	WRAY Michael	GCC	Volvo 240	69.47	71.04	68.07	67.35	66.36	66.28	67.25		66.28	
2	54	ISLES Cameron	GCC	Nissan Pulsar	69.10	68.52	68.80	68.00	68.18	67.98	67.24		67.24	0.96
3	80	RUBINIC Steve	GCC	Nissan Skyline	69.65	68.24	68.34	103.42					68.24	1.96
4	184	BAILEY Stuart	GCC	Ford Falcon	75.36	72.68	70.95	71.40	87.60				70.95	4.67

Sports Sedans 4WD

1	45	DYER James	GCC	GR Yaris	64.17	63.81	63.59	76.42		63.67	64.08		63.59	
2	9	REYNOLDS Shane	GCC	Subaru Liberty	69.53	68.92	67.42	68.12	68.18	67.53	66.97		66.97	3.38
3	81	CORLUKA Philip	WRX	Subaru WRX	74.02	70.87	70.82	69.59	67.69	69.48			67.69	4.10
4	8	CORLUKA William	WRX	Subaru WRX	78.65	76.76	71.15	73.55	69.23	70.18	69.11		69.11	5.52
5	445	LUCIANI Jad	GCC	Volkswagen Bora	75.09	74.57	73.71	73.39	72.27	73.06	74.59		72.27	8.68

Farmers writing romance novels



**GCC MULTICLUB HILL CLIMB
CLOCKWISE FIGURE 8 TRACK
Event Ranking**

Rank	Numbe	Name	Club	Vehicle	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6	Run 7	Run 8	Time	Gap
1	50	MINAHAN Peter	GCC	Hayward 07	58.30	57.44	57.03	56.88	56.66	56.18	55.53		55.53	
2	150	MINAHAN Bruce	GCC	Hayward 07	57.51	57.00	56.44	81.19	56.23	56.56	56.40		56.23	0.70
3	777	JANSSEN Wim	GCC	Wimp 004	58.90	58.31	56.48	57.20	57.01	57.04			56.48	0.95
4	70	MOILE Ewen	GCC	Ramblebee MK8	59.46	58.36	57.89	57.24	57.73	57.46	57.50		57.24	1.71
5	151	CASEY David	GCC	Casey TH109R	61.09	60.10	59.65		60.28	58.29	58.67		58.29	2.76
6	501	SAMSON Mark	GCC	Spectrum 011b	61.12	60.32	60.17	59.96	59.95	59.64	59.88		59.64	4.11
7	12	YEOMANS Rhys	GCC	Honda Civic	63.46	62.50	62.09	71.35	62.48	62.37	61.98		61.98	6.45
8	52	HOCKING Dale	GCC	Dalrick Clubman	64.40	63.58	65.64	64.22	63.50	63.70	62.60		62.60	7.07
9	171	BUFFINTON Steven	GCC	Westfield Clubman	66.07	65.25	63.26	62.76	79.28	63.08	63.37		62.76	7.23
10	41	WILSON Keith	GCC	Ninja BH1	70.89	65.17	63.45	63.97	63.49	63.52	63.04		63.04	7.51
11	45	DYER James	GCC	GR Yaris	64.17	63.81	63.59	76.42		63.67	64.08		63.59	8.06
12	245	SELWYN Terry	GCC	Datsun 1600	65.86	65.30	64.86	64.25	65.43	66.07	65.22		64.25	8.72
13	721	KOGGE Larry	GCC	Holden Torana	64.69	64.88	65.06	79.43	65.64	65.49	65.04		64.69	9.16
14	21	LEITNER Daniel	GCC	Subaru WRX	65.36	65.74			74.38				65.36	9.83
15	223	GREEN Michael	GCC	Hyundai Excel	67.85	66.95	65.84	68.81	66.37	66.21	66.19		65.84	10.31
16	4	WRAY Michael	GCC	Volvo 240	69.47	71.04	68.07	67.35	66.36	66.28	67.25		66.28	10.75
17	83	SPEIGHT Ian	GCC	Mazda MX5	67.47			66.54	66.58	67.52	66.88		66.54	11.01
18	15	NEWTON Mark	GCC	Holden Commodore	70.38	69.48	68.15	68.17	67.93	67.51	66.73		66.73	11.20
19	9	REYNOLDS Shane	GCC	Subaru Liberty	69.53	68.92	67.42	68.12	68.18	67.53	66.97		66.97	11.44
20	7	MCIVOR Garry	GCC	Ford Escort	71.27	68.37		68.32	68.27	67.43	67.07		67.07	11.54
21	54	ISLES Cameron	GCC	Nissan Pulsar	69.10	68.52	68.80	68.00	68.18	67.98	67.24		67.24	11.71
22	81	CORLUKA Philip	WRX	Subaru WRX	74.02	70.87	70.82	69.59	67.69	69.48			67.69	12.16
23	43	VELLA Sei	GCC	Mazda MX5	70.09	69.69	68.85	68.36	68.97	68.36	67.91		67.91	12.38
24	55	GOOSSENS Michael	GCC	Toyota MR2	68.86	68.16	68.31	69.51	68.02	69.23	68.24		68.02	12.49
25	38	MCNIVEN Jim	GCC	Mazda RX2	68.14	68.16							68.14	12.61
26	80	RUBINIC Steve	GCC	Nissan Skyline	69.65	68.24	68.34	103.42					68.24	12.71
27	115	NEWTON Mitchell	GCC	Holden Commodore	70.09	78.44	71.27	70.11	69.35	70.29	69.04		69.04	13.51
28	8	CORLUKA William	WRX	Subaru WRX	78.65	76.76	71.15	73.55	69.23	70.18	69.11		69.11	13.58
29	37	BRADLEY Frank	VHRR	Mini R56	70.33	71.05	71.67	71.85	70.76	70.24	69.42		69.42	13.89
30	51	STIPKOVIC Sharon		Toyota 86		72.08	71.25	70.62	69.76				69.76	14.23
31	555	GOOSSENS Brody	GCC	Toyota MR2	72.63	73.35	71.93	71.96	71.05	71.88	70.07		70.07	14.54
32	5	STIPKOVIC Jeffrey		Toyota 86	75.91	78.56	72.92	70.85	71.66	70.53			70.53	15.00
33	44	HESS Karl	GCC	Toyota MR2	72.08	70.81	70.63	71.21	70.67	71.30	70.78		70.63	15.10
34	42	SCHMIDT Stephen	VMCI	Fiat 124 AC	72.03	73.21	71.55	71.03	71.01	70.82			70.82	15.29
35	11	ORR Dennis	GCC	Hyundai Excel	74.13	73.11	72.68	71.77	71.66	71.29	70.93		70.93	15.40
36	184	BAILEY Stuart	GCC	Ford Falcon	75.36	72.68	70.95	71.40	87.60				70.95	15.42
37	198	ASSAAD Naim	GCC	Toyota Corolla	73.08	71.19							71.19	15.66
38	19	PRIESTLY Sean	GCC	Audi TT	76.04	73.68	72.38	73.57	72.03	71.47	71.67		71.47	15.94
39	91	THIRLWALL Carrie	GCC	Audi TT	77.23	73.42	71.97	71.98	71.66	72.45	73.65		71.66	16.13
40	74	MAYZE Ian	GCC	MGB Roadster	72.70	72.58	72.79	72.46	72.14	72.51	73.56		72.14	16.61
41	131	MURPHY Paul	GCC	Datsun 1200	73.88	74.53	74.05	74.27	73.41	72.20	72.86		72.20	16.67
42	445	LUCIANI Jad	GCC	Volkswagen Bora	75.09	74.57	73.71	73.39	72.27	73.06	74.59		72.27	16.74
43	40	BOWER Geoff	GCC	Austin A40 Farina	75.32	74.76	73.29	73.53	73.53	74.95	75.97		73.29	17.76
44	121	REYNOLDS Lloyd	GCC	Volkswagen Golf	75.25	75.37	73.96	73.86		73.70	73.58		73.58	18.05
45	72	HICKEY David	GCC	Toyota Corolla	79.83	76.00	73.94	73.66					73.66	18.13
46	243	VELLA Ray	GCC	Mazda MX5	76.17	76.45	76.84	76.94	76.32	75.07	74.44		74.44	18.91
47	112	JOHNSON Laurie	GCC	Ford Probe	77.95	77.38	76.46	76.78	75.43	76.69	75.96		75.43	19.90
48	71	THORBECKE Lex	GCC	Toyota Celica	75.72	76.78	76.73	78.41	75.51	77.00			75.51	19.98
49	159	BRYANT Jarrod	GCC	Toyota Corolla	78.97	77.99	77.44	77.13	76.80	76.12	76.10		76.10	20.57
50	27	HICKEY Paul	GCC	Toyota Corolla	76.29	76.34	77.32						76.29	20.76
51	6	CAMPBELL Scott	GCC	Holden Commodore	79.14	78.98	78.98	79.65	78.86	78.22	77.10		77.10	21.57
52	248	BAKER Terry	TCCA	Holden Commodore	85.92	78.04	79.16						78.04	22.51
53	727	HICKEY Jill	GCC	Toyota Corolla	83.64	82.81	79.47						79.47	23.94
54	98	ASSAAD Athan	GCC	Toyota Corolla	83.32	81.12							81.12	25.59

SUPPORTERS AND ADVERTISERS INDEX

These businesses support our club!! Make sure we support them!

Name	Product	Contact Details
Moe Parklands Motel	Accommodation	03 5127 3344 stay@moeparklandsmotel.com.au
BTR Machining and Cylinder heads	Dyno tuning, engine rebuilds, race prep, general repairs	03 5134 4023 simon@btrmorwell.com.au
Penrite Oils	Oils and lubricants	www.penritetopclass.com.au
Fowlers Asphalting	Roadmaking	03 5633 2918 admin@fowlersasphalting.com.au
Arrow Linemarking	Linemarking	0458 882 353 arrowlinemarking@y7mail.com
Alfa Motorsport Fibreglass	Automotive repairs	info@alfamotorsportfibreglass.com.au
O'Connell's tyres	Suspension, front end, brakes, shocks	03 5126 2822 Facebook presence https://oconnellstyres.weebly.com/
James Lambert	Photography	James Lambert @SJLambert6
Jim Jones	Photography	Jim Jones Jamar Imaging.net
SPIN Media	Photography and video	ncardwell@spinmelbourne.com
Trafalgar Auto Elec	Auto Electrics	56332062
Capaldo Automotive Repairs	Mechanical, alignment and MX 5 specialist	5134 4328 Ask for Steve
Peter Weaver Msport Photography	Photography	0438 109 027 peter.weaver@speedway.net.au
